HEALTH AND SOCIAL SERVICE PERSONNEL WORKING IN ALBERTA, 1986

Alberta Health and Social Services Disciplines Committee
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On March 31, 1986, the Alberta Health and Social Services Disciplines Committee conducted a survey of employers of health and social service personnel. This is the eleventh survey undertaken by the Committee since 1979. The purpose of the survey is to collect province-wide information on the human service labor force.

This report summarizes the results of the 1986 survey. The information is reported in two parts. Part 1 describes the survey and provides a brief analysis of the findings. In particular, it highlights those occupational groups with high vacancy or turnover rates and salient historical manpower trends. Part II reports the data for 81 health and social service occupations included in the survey

PART I

Methodology

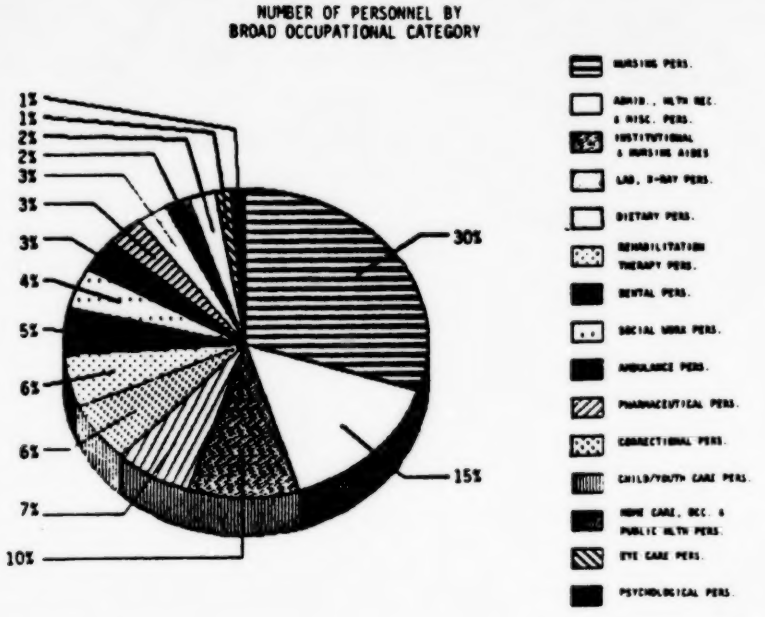
The survey covered all employing agencies of health and social service personnel in Alberta, except physicians' offices. The survey was conducted by means of mailed questionnaires and follow-up telephone interviews. Out of 4,435 agencies contacted, 4,391 completed the survey. This represents a response rate of 99.0 percent. The types and number of agencies successfully contacted are shown in Footnote 1.

Manpower information was collected on 81 health and social service occupations. Several occupational groups such as ambulance personnel, child care workers, registered nurses, and social workers were subdivided according to specialty area or educational level. Each employing agency was requested to report the number of full-time and part-time personnel[2] and the number of vacant positions as of March 31, 1986. It was also asked to report the number of resignations during the 12-month period from April 1, 1985 to March 31, 1986. Additional information was collected on anticipated manpower shortages and the number of contract and casual personnel employed.

Survey Highlights

Within the 81 occupational groups, the survey counted 68,233 persons working in the health and social service agencies and institutions surveyed. About 69 percent of the personnel worked full-time. The rest were part-time personnel. Figure 1 represents the total number of full-time and part-time personnel enumerated by the survey and the proportions accounted for by 15 broad occupational categories.

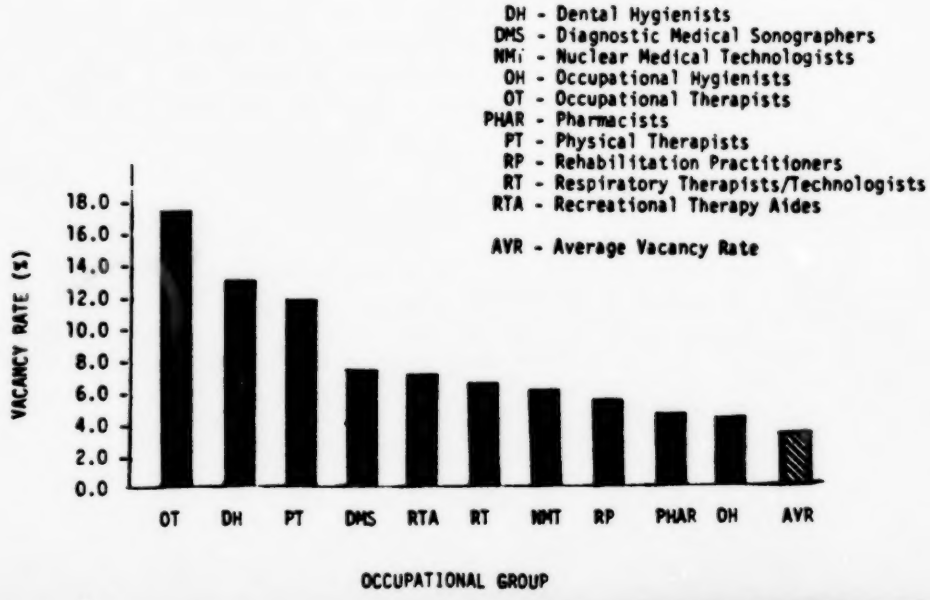
Figure 1



At the time of the survey, there were about 2,200 full-time and part-time vacant positions. The average vacancy rate for all health and social service occupations surveyed was 3.1 percent as of March 31, 1986. Figure 2 shows the ten occupational groups with 50 or more full-time equivalent positions[3] and the highest vacancy rates.

Figure 2

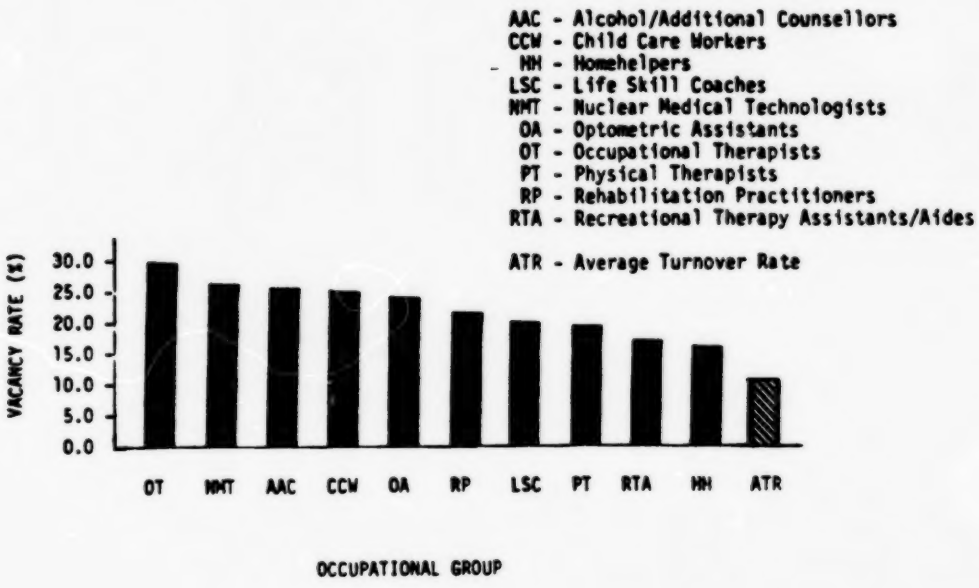
OCCUPATIONAL GROUPS WITH
HIGHEST VACANCY RATES
ALBERTA, 1986



There were over 8,700 resignations during the 12-month period prior to the survey. The average staff turnover rate was 12.1 percent. The ten occupational groups with 50 or more full-time equivalent positions and the highest turnover rates are shown in Figure 3.

Figure 3

OCCUPATIONAL GROUPS WITH
HIGHEST TURNOVER RATES
ALBERTA, 1986



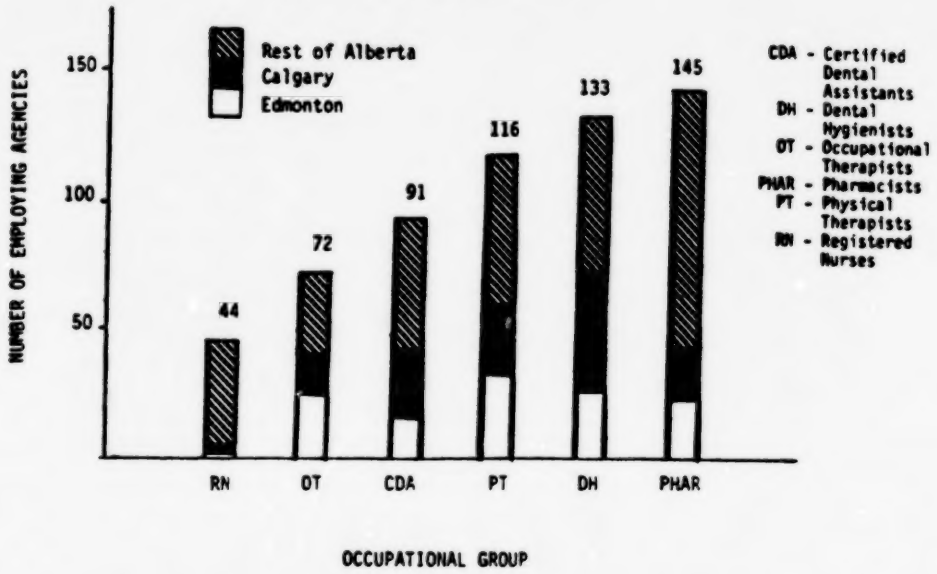
Vacancy and turnover rates reflect, to a certain extent, manpower demands. But they indicate manpower demands before or at the time of the survey. In order to get a sense of what manpower shortages the province might encounter in the near future, employing agencies were asked to indicate anticipated recruitment difficulties in 1986/87. Of the employers surveyed, 583 responded to this question. Twenty-five percent of the respondents were from Calgary, 24 percent from Edmonton, and the remainder from non-metropolitan areas of the province.

The majority of the respondents believed that manpower shortages were due to reluctance on the part of many human service personnel to locate in non-metropolitan areas and the shortage of qualified personnel in a number of occupations.

Figure 4 shows the six occupational groups most often mentioned by employing agencies as likely to experience manpower shortages in 1986/87. For example, pharmacists were mentioned 145 times as difficult-to-recruit personnel. Of the 145 employing agencies mentioning pharmacists, 45 were from Calgary, 23 were from Edmonton, and 77 were from the rest of the province.

Figure 4

ANTICIPATED MANPOWER DIFFICULTIES
REPORTED BY EMPLOYING AGENCIES
BY LOCATION, ALBERTA, 1986



Historical Manpower Trends

To a large extent, manpower information becomes meaningful in a comparative context. The previous section compared different occupational groups in terms of their size, vacancy rate, and turnover rate. This section compares past and present labor force conditions in the health care and social service sector. The section begins by looking at broad historical manpower trends. It then identifies a number of occupational groups that experienced substantial changes between 1985 and 1986.

Figure 5 shows the changes in the average vacancy rate for all occupations surveyed from 1979 to 1986. The average vacancy rate fell to an all-time low in 1982 and rebounded somewhat to reach 3.1 percent in 1986. Figure 6 shows the changes in the average turnover rate for all occupations surveyed from 1979 to 1986. After reaching a historical low in 1985, the average yearly turnover rate moved up slightly to 12.1 percent in 1986.

A number of occupational groups experienced substantial changes that are not obvious when one looks at average rates for all occupations surveyed. A few of these major changes are reported as follows:

Alcoholism Counsellors: The 12-month turnover rate increased from 17.0 percent in 1984/85 to 25.6 percent in 1985/86.

Child Care Workers: The 12-month turnover rate for child care workers increased from 17.7 percent in 1984/85 to 25.3 percent in 1985/86.

Figure 5

AVERAGE VACANCY RATE FOR ALL OCCUPATIONS SURVEYED.
1979-1986

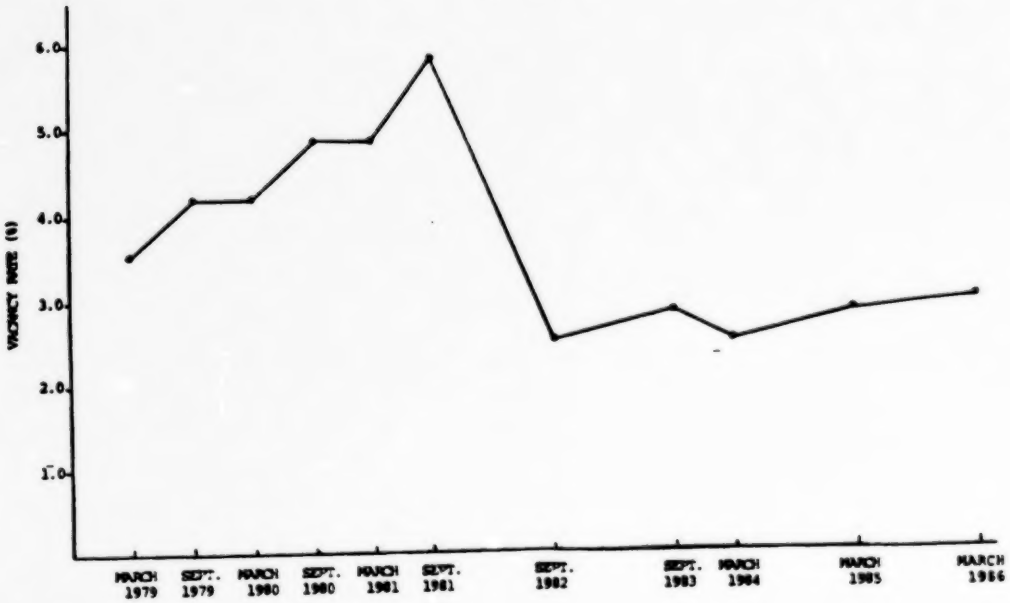
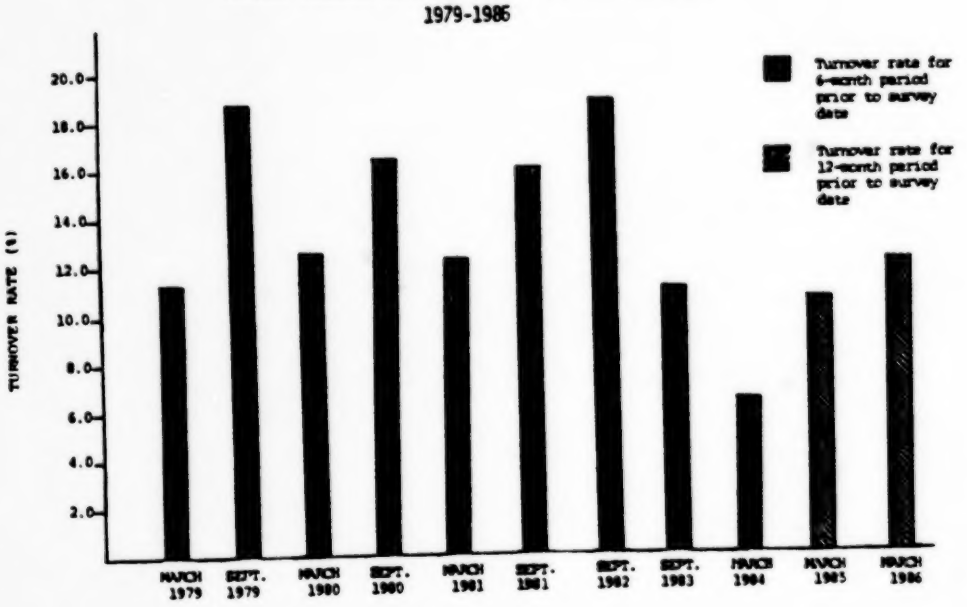


Figure 6

AVERAGE TURNOVER RATE FOR ALL OCCUPATIONS SURVEYED.
1979-1986



Combined Laboratory and X-Ray Technicians: The number of practitioners dropped from 349 in 1985 to 296 in 1986. The turnover rate rose from 6.8 percent in 1984/85 to 11.1 percent in 1985/86.

Community Health Representatives: The number of practitioners declined by 22 percent. On the other hand, the turnover rate increased from 2.2 percent in 1984/85 to 11.3 percent in 1985/86.

Dental Assistants: The number of practitioners increased by eight percent from 1,838 in 1985 to 1,983 in 1986.

Denturists: The number of denturists increased by 18 percent from 182 in 1985 to 215 in 1986.

Dietitians: The number of practitioners grew substantially from 188 in 1985 to 270 in 1986, an increase of 44 percent. There was a similar rise in the 12-month turnover rate, from 9.2 percent in 1984/85 to 15.8 percent in 1985/86.

Emergency Medical Technicians: The number of practitioners grew by 16 percent, from 994 in 1985 to 1,158 in 1986.

Occupational Therapists: The number of practitioners, vacancy rate, and turnover rate all increased. The number of occupational therapists grew by 11 percent during the 1-year period. The vacancy rate and turnover rate increased from 12.3 percent to 17.5 percent and from 18.5 percent to 29.5 percent, respectively.

Physical Therapists: The number of physical therapists increased by 11 percent between 1985 and 1986.

Probation and Parole Officers: The number of practitioners grew from 303 in 1985 to 369 in 1986, an increase of 22 percent.

Registered Nurses: The number of practitioners declined from 16,213 in 1985 to 15,498 in 1986. While fewer registered nurses worked in intensive care and medical/surgical areas, the number of registered nurses in long-term rehabilitation rose substantially.

Social Workers: While the total number of practitioners dropped slightly, the number of social workers with B.S.W. qualifications grew by eight percent, from 725 in 1985 to 785 in 1986. The turnover rate for social workers with related masters degrees rose substantially, from 4.6 percent in 1984/85 to 16.6 percent in 1985/86.

Because of the limitation of space, this report can only provide a few highlights of the survey. If more detailed manpower information from the survey is required, it may be obtained by contacting the Alberta Health and Social Services Disciplines Committee at (403) 427-6904.

PART II

ESTABLISHED POSITIONS, VACANT POSITIONS, VACANCY RATES, RESIGNATIONS, AND TWELVE-MONTH TURNOVER RATES BY HEALTH AND SOCIAL SERVICE OCCUPATIONAL GROUP, ALBERTA, MARCH 31, 1986

Occupational Groups	Established Positions	Vacant Positions[4]	Vacancy Rate (%):[5]	Resignations[6]	Turnover Rate (%):[7]
ALL HEALTH AND SOCIAL SERVICE PERSONNEL SURVEYED*	56,307	1,723	3.1	6,790	12.1
AMBULANCE PERSONNEL					
Ambulance Attendant *(All)*	*598*	*16*	2.7	56	9.4
PAID					
On-the-job trained	8	0	2.0	3	37.5
Standard St. John	151	3	2.2	8	5.1
Advanced St. John	21	0	0.0	3	15.6
Others	94	0	0.4	6	6.7
VOLUNTEER					
On-the-job trained	61	1	1.1	2	3.3
Standard St. John	168	4	2.6	27	16.1
Advanced St. John	26	7	27.3	3	10.4
Others	69	1	1.0	4	6.2
Emergency Medical Technicians *(All)*	*946*	*27*	2.9	90	9.5
PAID					
Ambulance	510	19	3.8	59	11.6
Paramedic	285	1	0.4	20	7.1
VOLUNTEER					
Ambulance	136	7	5.4	9	6.4
Paramedic	15	0	0.0	2	13.6
CHILD/YOUTH CARE PERSONNEL					
Hospital Child/Youth Care Workers	20	0	0.0	4	18.6
Child Care Counsellors/ Workers *(All)*	*1,234*	*46*	*3.8*	*313*	25.3
Bachelor degree in child care	19	0	0.0	4	23.2

Occupational Groups	Established Positions	Vacant Positions	Vacancy Rate (%):	Resignations	Turnover Rate (%):
CHILD/YOUTH CARE PERSONNEL (Continued)					
Related bachelor or masters degree	316	8	2.5	114	36.2
Diploma in child care/ youth development	258	10	3.9	46	17.9
Related diploma	191	10	5.4	56	29.1
Unrelated diploma or degree	145	12	8.3	24	16.6
Others	306	6	2.0	68	22.3
Houseparents	228	5	2.0	32	14.2
CORRECTIONAL PERSONNEL					
Probation and Parole Officers	378	12	3.2	52	13.8
Correctional Officers	1,451	13	0.9	74	5.1
DENTAL PERSONNEL					
Dental Assistants *(All)*	*1,815*	47	2.6	267	14.7
On-the-job trained	611	7	1.1	94	15.4
Certified with intra-oral training	1,072	37	3.5	151	14.1
Certified without intra-oral training	133	3	2.3	22	16.3
Dental Hygienists	492	65	13.2	69	14.0
Dental Technicians *(All)*	459	15	3.2	59	12.9
Certified	163	5	3.1	10	6.0
Non-certified	295	10	3.3	49	16.6
enturists/Dental Mechanics *(All)*	211	6	2.7	5	2.5
Certified	161	2	1.2	1	0.6
Non-certified	50	4	7.4	4	8.7

Occupational Groups	Established Positions	Vacant Positions	Vacancy Rate (%):	Resignations	Turnover Rate (%):
DIETARY PERSONNEL					
Dietitians	206	7	3.4	33	15.8
Nutritionists	34	1	1.9	3	9.7
Dietary Technicians	213	5	2.5	31	14.4
Dietary Aides/Service Workers	2,302	35	1.5	263	11.4
Other Dietary Personnel	326	3	0.9	36	11.1
EYE CARE PERSONNEL					
Ophthalmic Dispensers *(All)*	497	6	1.2	54	10.9
Certified	299	3	1.0	27	8.9
Non-certified	198	3	1.5	27	13.8
Ophthalmic Assistants	63	2	3.2	9	14.4
Optometric Assistants	165	7	4.2	41	25.1
Orthoptists	12	1	8.6	1	8.6
Other Eye Care Personnel	104	0	0.0	1	1.0
HEALTH RECORDS PERSONNEL					
Health (Medical) Record Administrators/Librarians	124	2	1.9	11	8.6
Health (Medical) Record Technicians	232	9	3.7	22	9.5
Medical Dicta-Typists/ Transcriptionists	282	10	3.7	44	15.6
Other Health Records Personnel	44	0	0.0	6	13.0
HOME CARE PERSONNEL					
Homemakers	380	5	1.4	50	13.1
Homehelpers	140	0	0.0	24	17.4
Personal Care Attendants	93	0	0.0	7	7.5

Occupational Groups	Established Positions	Vacant Positions	Vacancy Rate (%):	Resignations	Turnover Rate (%):
LABORATORY, X-RAY, DIAGNOSTIC AND THERAPEUTIC PERSONNEL					
Combined Laboratory and X-ray Technicians	217	1	0.5	24	11.1
Medical Laboratory Scientists	41	1	2.4	1	2.4
Medical Laboratory Technologists	1,935	29	1.5	215	11.1
Medical Laboratory Assistants/Aids	635	6	0.9	73	11.5
Electroencephalographic (E.E.G.) Technologists	37	3	8.0	1	3.6
Respiratory Therapists/ Technologists	279	18	6.6	41	14.8
Electrocardiographic (ECG, EKG) Technicians (Cardiology) Technicians	44	2	5.3	4	9.8
Dialysis Technicians	17	0	0.0	3	15.6
Orthopaedic Technicians/ Assistants/Technologists	24	1	4.2	1	4.2
Radiological (Diagnostic X-Ray) Technologists	608	7	1.1	49	8.1
Nuclear Medicine Technologists	56	4	6.5	15	26.2
Radiotherapy (Therapeutic Radiology) Technologists	41	1	2.4	2	4.8
Ultrasound Technologists	79	6	7.6	11	13.6
Other Laboratory/X-Ray Personnel	44	6	13.7	6	14.5
NURSING PERSONNEL					
Registered Nurses *(All)*	*12,609*	*491*	3.9	*1,461*	*11.6*
Intensive care units	769	44	5.7	108	14.0
Operating room	514	28	5.5	63	12.3
Recovery room	101	5	5.0	8	7.6
Intravenous therapy	29	2	7.9	1	4.9
Medical/Surgical	2,856	139	4.9	408	14.3
Maternal/Child	446	13	2.8	51	11.3

Occupational Groups	Established Positions	Vacant Positions	Vacancy Rate (%):	Resignations	Turnover Rate (%):
NURSING PERSONNEL (Continued)					
Emergency room	391	13	3.3	41	10.4
Psychiatric	603	28	4.6	98	16.2
Paediatric	557	26	4.6	62	11.2
Nursing education	685	34	5.0	39	5.7
Administrative	1,351	27	2.0	104	7.7
Community/Public health	648	26	4.1	52	8.0
Home care	289	12	4.1	13	4.6
Physician's offices, medical or school clinics	310	1	0.4	74	23.8
Occupational/Staff health	377	0	0.0	17	4.5
Labor delivery/Recovery suite	274	17	6.3	34	12.3
Short stay unit	81	4	4.5	4	5.2
Long term care/Rehabilitation	1,165	36	3.1	123	10.6
Out patient	146	3	2.2	17	11.4
General duty	637	17	2.6	104	16.3
Others	381	17	4.4	40	10.4
Graduate Nurses	170	4	2.2	15	8.8
Psychiatric Nurses	691	38	5.5	89	12.9
Mental Deficiency Nurses	10	0	0.0	0	0.0
Registered Nursing Assistants *(All)*	*3,053*	*48*	*1.6*	292	9.6
Nursing assistants/ Orderlies	2,944	46	1.6	285	9.7
Operating room technicians	109	1	1.2	7	6.1
Other Nursing Staff	3,989	56	1.4	558	14.0
OCCUPATIONAL HEALTH PERSONNEL					
Occupational Hygienists	62	3	5.4	3	5.4
Occupational Hygiene Technologists	46	2	3.6	2	5.0

Occupational Groups	Established Positions	Vacant Positions	Vacancy Rate (%):	Resignations	Turnover Rate (%):
PHARMACEUTICAL PERSONNEL					
Pharmacists	1,521	86	5.6	167	11.0
Pharmacy Assistants/Technicians	323	11	3.5	26	8.0
Other Pharmaceutical Personnel	23	2	7.3	3	14.7
PSYCHOLOGICAL PERSONNEL					
Psychologists	634	30	4.8	55	8.7
Psychological Assistants	99	1	1.0	14	14.2
PUBLIC HEALTH PERSONNEL					
Public Health Inspectors	131	3	2.3	20	15.2
Community Health Representatives/Workers	71	0	0.0	8	11.3
REHABILITATION THERAPY PERSONNEL					
Occupational Therapists	334	59	17.5	99	29.5
Occupational Therapy Assistants/Aides	102	1	1.3	10	9.5
Physiotherapists	743	88	11.9	162	21.8
Physiotherapy Assistants/Aides	148	5	3.4	19	12.6
Speech Pathologists/Therapists	272	11	3.9	24	8.8
Speech Pathology Assistants/ Aides	35	0	0.0	5	14.5
Clinical Audiologists	26	1	3.8	4	14.1
Audiometric Technicians	2	0	0.0	0	0.0
Remedial Gymnasts	9	0	0.0	4	44.4
Recreational Therapists	204	12	6.0	29	14.1
Recreational Therapy Assistants/Aides	313	21	6.8	56	17.8
Prosthetists/Orthotists	35	5	14.2	5	15.1

Occupational Groups	Established Positions	Vacant Positions	Vacancy Rate (%):	Resignations	Turnover Rate (%):
REHABILITATION THERAPY PERSONNEL (Continued)					
Other Prosthetic and Orthotic Personnel	40	0	0.0	0	0.0
Rehabilitation Counsellors/ Practitioners	1,180	71	6.0	269	22.8
Other Rehabilitation Personnel	101	2	2.0	10	10.3
SOCIAL SERVICE PERSONNEL					
Social Service Aides	23	1	4.3	5	21.4
Alcoholism/Addiction Counsellors	254	0	0.0	65	25.6
Life Skills Coaches	57	0	0.0	13	22.7
Other Social Service Personnel	417	10	2.3	42	10.1
SOCIAL WORK PERSONNEL					
Social Workers *(All)*	*2,092*	*44*	*2.1*	*198*	*9.5*
MSW	407	17	4.3	43	10.7
Related masters degree	66	0	0.0	11	16.6
BSW	771	20	2.6	62	8.0
Bachelor or unrelated masters degree	339	2	0.6	40	11.7
Social services diploma	273	4	1.3	20	7.5
Others	237	1	0.6	21	8.7
ADMINISTRATIVE AND MISCELLANEOUS HEALTH AND SOCIAL SERVICE PERSONNEL					
Administrators	7,795	140	1.8	700	9.0
Institutional Aides	1,331	39	3.0	228	17.1
Miscellaneous Health and Social Service Personnel	261	8	3.1	29	11.0

*Figures for total and sub-totals may not agree due to rounding errors. Also, as a result of rounding errors, there are instances where there are no vacancies or resignations but with vacancy and turnover rates.

FOOTNOTES

1 Types and number of employing agencies successfully surveyed:

a) Community health and social service agencies (313);
b) Regional and district social service offices of the Department of Social Services and Community Health (179);
c) Correctional institutions (63);
d) Local school boards and schools for the handicapped (110);
e) Health and social service training programs at post-secondary educational institutions (56);
f) AADAC centres and municipal health and social service agencies funded by Family and Community Support Services (122);
g) Offices of Health and Welfare Canada and Indian and Northern Affairs Canada (36);
h) General, auxiliary, and psychiatric hospitals (185);
i) Offices of local health authorities (142);
j) Medical clinics and laboratories (296);
k) Nursing Homes (88);
l) Industrial firms and government departments employing occupational health personnel (31);
m) Community pharmacies (650);
n) Ambulance operators (123);
o) Dental laboratories, dental clinics, and offices of dentists (1,018);
p) Ophthalmic dispensers, and offices of ophthalmologists and optometrists (431);
q) Child care institutions and group homes (110);
r) Psychologists in private practice (329); and
s) Physiotherapists in private practice (109).

2 Full-time personnel refer to those who worked 30 hours or more per week. Part-time personnel refer to those who worked less than 30 hours per week.

3 For all occupational groups, other than registered nurses, three part-time positions were converted into one full-time equivalent position. For registered nurses, 2.38 part-time positions were converted to one full-time equivalent position. This conversion formula for registered nurses was based on findings obtained by the Alberta Hospital Association's **Nursing Manpower Study** conducted in 1980.

The following formula is used to calculate full-time equivalent positions for all manpower groups **except** for registered nurses:

Full-time equivalent position = (Full-time + 1/3 part-time) number of personnel employed + (full-time + 1/3 part-time) number of vacancies.

For registered nurses, the same formula is used, except that 1/2.38 is used for part-time personnel and vacancies.

4 The following formula is used to calculate full-time equivalent vacant positions except for registered nurses:

Full-time equivalent vacant positions = (Full-time + 1/3 part-time) number of vacancies.

For registered nurses, the same formula is used, except that 1/2.38 is used for part-time.

5 Vacancy rate = number of full-time equivalent vacant positions ÷ number of full-time equivalent positions

6 The following formula is used to calculate full-time equivalent resignations except for registered nurses:

Full-time equivalent resignations = (Full-time + 1/3 part-time) number of resignations.

For registered nurses, the same formula is used, except that 1/2.38 is used for part-time.

7 Turnover rate = number of full-time equivalent resignations ÷ number of full-time equivalent established positions